ISSN: 2230-9926

Available online at http://www.journalijdr.com

IJDR

International Journal of Development Research
Vol. 06, Issue, 01, pp. 6486-6498, January, 2016

International Journal of
DEVELOPMENT RESEARCH

Full Length Research Article

RIYAZAT (EXERCISE): A PART OF ILAJ BIL TADBEER AND ITS ROLE IN PREVENTION OF DISEASES

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ARTICLE INFO

Article History:
Received 29th October, 2015
Received in revised form
14th November, 2015
Accepted 29th December, 2015
Published online 31st January, 2016

Key Words:
Exercise, Regimental therapy,
Evacuation of waste,
Purification.

ABSTRACT

Riyazat is any bodily activity that enhances or maintains physical fitness and overall health and wellbeings. It is performed for various reasons, including strengthening muscles and the cardiovascular system, honing athletic skills, weight loss or maintenance, and merely enjoyment. Frequent and regular physical exercise boosts the immune system and helps to prevent the "disease of affluence" such as in cardiovascular disease, Type 2 diabetes, and obesity. It may also help to prevent depression, help to promote or maintain positive self-esteem, and improve mental health generally. In Unani system of medicine exercise is one of the sixteen methods of treatment of regimenal therapy and is used as a voluntary movement with the purpose of tanqiya e mawad (evacuation of waste material), for purification of the body in an individual. It maintains good health and prevents or cures diseases as well.

INTRODUCTION

Unani medicines owe its origin to Greece 2013-01-08. This system originated as far back as 460-370 BC with the contribution of Hippocrates (Bhagaonkar and Ahmad, 2007). It encompasses a wide range of practices. Regimental therapy is one of them. It includes venesections, cupping, the promotion of diaphoresis, diueresis, Turkish baths, cauterization, massages, purgation, emesis, exercise and leeching (Anonymous, 2010), fomentation, pouring of lukewarm water on affected part, ointment and liniment, enema, leeching etc (Cameron Gruner, 1930). These different types of methods are used for the treatment of various ailments. *Riyazat* is a volountry movement with the purpose of *Tanqiyae mawad* (evacuation of wastes material) for an individual. It plays an important role not only in maintaining good health and prevention of diseases but also in curing certain ailments as well. The objectives of performing *Riyazat* are as follows:

- to improve *istehala* (metabolism) for proper functioning of the body,
- to remove waste product from the body,
- to tone up individual organs,
- to maintain or improve flexibility of the body,
- to maintain coordination and balance of the musculoskeletal system of the body,
- to relieve anxiety, insomnia, depression as well.[3]

In this way exercise strengthen the body as a whole. Although Unani system of medicine has its own areas of expertisation and remarkable results in curing the disorders of musculoskeletal system, respiratory conditions, skin, liver, and nervous system disorders and several other acute and chronic disorders whereas other system have failed to give desired response. Now this system has crossed national boundaries and popular along the masses globally. In some of its expertisations as mentioned above it has a remarkable role in some of aforesaid disorders using exercise as an element to cure the same (www.tkdl.res.in/tkdl/regimental.asp 2013-01-08,). In this paper, we will discuss about the *Riyazat* (exercise) and its broad indications in preventing and curing various types of diseases.

Value of Exercise (Cameron Gruner, 1930)

- It hardens the organs and renders them fit for their functions
- It results in a better absorption of food, aids assimilation, and by increasing the innate heat, improves nutrition
- It clears the pores of the skin

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- It removes effete substances through the lungs
- Strengthen the physique.

Various forms of exercise

There are two main forms of exercise:

(a) That pertaining to the ordinary human undertakings.
(b) That which is undertaken for its own sake, namly for the advantage accruing from its persuit **(i.e** sports, athletics, gymnastic etc.)

There are differences between the two forms (Cameron Gruner, 1930)

One is strong and powerful, the other weak and light**;** one is speedy and other is slow**.** Athletics implies sternous exertion, combining swiftness with energy, recreative exercise, undertaken for relaxation, implies leisurely movements. There are all grades between these extremes, and there is mean between them (called moderate exercise).

List of the forms of exercise (Cameron Gruner, 1930)

- Sternous forms-wrestling contest, boxing
- quick marching-running, jumping over an object higher than one foot
- throwing the javelin-fancing
- equivitation or horsemanship-hunting

Heat produced by exercise (Cameron Gruner, 1930)

Exercise is appropriate to create undue heat, and inflammation upto an intempramental degree, whereas there is only a moderate aggregation of heat when the innate heat is imprisoned, and so, inflammation is less feasible. You know that this is so, because of the fact that exercise makes breathing laboured and hurried, incomparably more than when the innate heat is constricted and imprisoned by some other agent similar to sleep. For instance, to be submerged in tapid water brings about such an imprisonment of innate heat, and produces rapid respiration, yet not nearly to the extent produce by toil and exercise. Careful consideration shows that, nothing increases the heat as much as these do but it is not the mere exercise which accounts for this, as if resting would bring about a cessation of heat production, it is rather that the heat produced by exercise simply moves on the breath to the exterior parts, as long as generation of the breath takes place.

The docterines of diffrent old physcians regarding exercise (Abdul Aziz khan *et al*., 2014)

The use of therapeutic exercise was recorded as early as 800 BC in the manuscript of arthveda. According to this manuscript exercise and massage were recommended for choric rheumatism. However most historians in the field believed that, therapeutic exercise first gain popularity and spread use in ancient Greece.

Herodicus is believed to be the first physician to write on the subject, and is considerd the father of therapeutic exercise. herodicus claimed to have used exercise to cure himself of an incurable disease and he developed an elaborate system for athletes.

Hippocrates the most famous herodicus student, wrote on the beneficial effects of the exercise and its value in strengthening muscles, improving mental attitude, decreasing obesity.

Galen considered the some as the greatest physician in the Rome, wrote on exercise in 2nd centaury AD. He was appointed as the physician for gladiators and classified exercise according to intensity, duration and frequency. In the 5th centuary another physician Aurilianus recommended exercise during convalescence from surgery and advocated the use of weights and pulleys.

Razi (865AD-925AD) has described time, uses, types and precautionary *kitabul murshid.*measures before and after *riyazat* in

Avicenna (980AD-1030AD) has well discussed regarding *riyazat* in his treatise, Al Qanoon Fi Tib. He detailed the mechanism of actions, varieties, methods, special exercise for each organ, therapeutic exercise, the limit and amount of *riyazat.* Therapeutic exercise of modern times appeares to have originated in Sweden in 19th centuary with fancing instructor named Per Henri Ling. His system of therapeutic exercise included dosage counting and detailed instruction of each exercise. He demonstrated that precise movements if scientifically applied could serve to remedy disease and dysfunction of the body.

In 1902 AD swiss physician Frankel wrote a controversial paper. he proposed an exercise program for ataxia that incorporated repetitive activities to improve damaged nerves. In 1934 AD, Codmen developed a series of exercise to alleviate the pain in shoulder these exercises are referred to as codman or pendulum exercises. One of the most important advancement was the adaptation of progressive resistance exercise (PRE) by Delorme in 1945, which was used in military hospitals to rehabilitate patient after surgery of knee.

Kabat 1956 introduced diagonal movement and use of a variety of reflexes to facilitate muscle contraction.

Types of exercise

- Riyazate Haqeeqi/Kulli /Complete exercise e.g. horse riding (Jurjani *et al*., 2010; Ibn Sina, 2006)
- Riyazate Juziya /Partial exercise e.g. stone lifting (Ibn Sina, 2010; Ibn Sina, 2006; Jurjani *et al*., 2010; Baghdadi, 2004)

Partial exercise is a part of real exercise which is related to the exercise of specific organ and specific Quwa (faculties) like reading of small alphabets by the eyes, weeping is the exercise of children, likewise angriness is the exercise of Barid Mizaj (cold temperament) persons.

Another classification of Riyazat

Riyazate A´arziya/Gair Iradi (unwillingly)

Exercise in which there is no will to do exercise, it is done in daily ordinary occupational activities like for iron-smith and washer man etc. (Ibn Sina, 2006; Baghdadi, 2004)

B. Riyazate Zatiya/Khalisa

This exercise is done purposefully to gain its benefits. It is further subdivided according to its duration, strength, and mode etc. (Ibn Sina, 2006; Baghdadi, 2004)

Types of riyazat zatiya/khalisa

According to duration

- **Riyazat qaleela-** Short duration exercise (Ibn Sina, 2006)
- **Riyazat kaseera-** Long duration exercise (Majoosi, 2010; Ibn Sina, 2006)
- **Riyazat moatadil-** Moderate duration exercise (Majoosi, 2010; Ibn Sina, 2006)

According to strength

- **Riyazat qawiya/shadeeda-**forcefull exercise (Majoosi, 2010; Ibn Sina, 2006)
- **Riyazat zaeefa/mild exercise-**in which less force is used (Majoosi, 2010; Ibn Sina, 2006)
- **Riyazat moatadil-**average sternous exercise in which average force is used (Majoosi, 2010; Ibn Sina, 2006)

According to sura'at

- **Riyazat sariya-**the exercise in which movements should be rapid and fast (Majoosi, 2010; Ibn Sina, 2006)
- **Riyazat batiya-**exercise in which movements should be dull and delay (Majoosi, 2010; Ibn Sina, 2006)
- **Riyazat moatadil-**movements in between riyazat sariya and batiya (Majoosi, 2010; Ibn Sina, 2006)

According to strength and sura'at

- **Riyazat hasheesha-**strong and fast movements are done (Majoosi, 2010)
- **Riyazat mutarakhiya-**in which movements are weak and slow (Majoosi, 2010)
- **Riyazat moatadil-**exercise between hasheesha and mutarakhiya (Majoosi, 2010)

Modes of *Riyazat*/ Exercise

A person can adapt different modes of Riyazat/exercise according to his/her facility/necessity, which are recommended by Greek physician; they have described many modes of exercise are as following

- Musariyat (wrestling) (Majoosi, 2010; Ibn Sina, 2006; Ibn Sina, 2010; Shah, 2007; Baghdadi, 2004; Tabri, 2010)
- Mubatishat (trials of strength against each other) (Ibn Sina, 2006; Ibn Sina, 2010; Shah, 2007)
- Mulakzat (boxing) (Ibn Sina, 2006; Ibn Sina, 2010; Shah, 2007; Baghdadi, 2004)
- Ahzar (running and racing) (Ibn Sina, 2006; Ibn Sina, 2010; Shah, 2007; Baghdadi, 2004; Tabri, 2010)
- Musabiqat (brisk walking) (Ibn Sina, 2006; Ibn Sina, 2010; Shah, 2007; Baghdadi, 2004; Tabri, 2010)

Archery (Shah, 2007; Ibn Sina, 2006; Baghdadi, 2004)

- Zobain (javelin-throwing) (Ibn Sina, 2006; Ibn Sina, 2010; Shah, 2007; Baghdadi, 2004) to perform total body swinging movement, upper limb strengthening, and stretching exercises. (Ibn Sina, 2010)
- Horse riding (Majoosi, 2010; Ibn Sina, 2006; Ibn Sina, 2010; Shah, 2007; Baghdadi *et al*., 2004; Tabri *et al*., 2010; Jurjani *et al*., 2010) to perform leg swinging exercise, neck and trunk exercise and upper limb exercise. (Narayanan, 2005)
- Khafaq Bil Dain (standing on toes, the arms kept raised in front of chest move forward and backward in quick succession) (Shah, 2007; Ibn Sina, 2006)
- Swinging (Ibn Sina, 2006; Jurjani, 2010) is a free exercise which induces relaxation to reduce a state of wasteful tension in muscles. (Gardiner, 1985) It is also used for shorter periods to mobilize the joints. (Hollis and Cook, 1999)
- Zoraq wa Zamariya (boating) beneficial for digestion. (Jurjani, 2010)
- Mujahidazall (fighting one's shadow with a spear or sword)
- Tasfeeq Bil Kafeen (clapping) (Majoosi, 2010; Ibn Sina, 2006; Ibn Sina, 2010; Shah, 2007; Baghdadi, 2004)
- *Tafar* (jumping) (Ibn Sina, 2006; Shah, 2007)
- *Soobjan* (playing with large or small ball) (Ibn Sina, 2006; Shah, 2007)
- *Tabtaab bazi* (sword-play or fencing) (Ibn Sina, 2006; Baghdad, 2004)
- Stone lifting (Rushd, 1987; Majoosi, 2010; Baghdadi, 2004; Tabri, 2010) to provide shoulder rotational movements and forearm supination and pronation. (Hollis and Cook, 1999)
- Hopping on one foot. (Shah, 2007; Ibn Sina, 2006)
- Carriage riding (Shah, 2007; Ibn Sina, 2006)

***Sharaite Riyazat*/principles of exercise**

In the *Sharaite Riyazat* eight principles are considered.

- *Miqdare riyazat* (intensity of exercise) (Ibn Sina, 2006; Nafis ., 1934)
- *Waqte riyazat* (timing of exercise) (Ibn Sina, 2006; Nafis 1934)
- *Riyazat se pehle ki Ghiza* (meal before exercise) (Ibn Sina, 2006)
- *Riyazat karne wale ki umr* (age of person) (Ibn Sina, 2006)
- *Riyazat karne wale ka Mizaj* (temperament of person) (Ibn Sina, 2006)
- *Riyazat karne wale ki jismani halat* (physic of person) (Ibn Sina, 2006)
- *Maujooda waqt* (present environment) (Ibn Sina, 2006)
- *Aazae maoofa ki halat* (condition of body parts) (Ibn Sina, 2006)

Buqrat proposed that a person who is hunger should not do any exercise or heavy work because it produces fatigueness.[10] As one knows that the life and health depend upon food/diet like meat, chapatti, pulses, and rice etc. (Ibn Sina, 2006) All foods are not digested completely. So, undigested materials are remaining as a waste; for the removal of waste *Tabiyat* plays an important role, but it does not remove it completely. Hence, waste material remains in the body and causes harm. If this waste matter gets putrefied, it produces infectious diseases

(*ufooni amraz*) (Shāh, 1998) And, if, the *Kayfiyāt* (quality) of retained matter becomes alter, produces *Sue Mizaj*. Sometimes, *Kammiyat* (quantity) increases and results in congestive diseases (*imtelai amraz*). If they accumulate in the particular organ causes inflammation (*waram*). These waste materials change the *Mizaj* of the *Rooh*. Thus, exercise prevents the accumulation of waste matter and it also helps in the removal of waste matter from the body to maintain the health. (Ibn Sina, 2006; Ibn Sina, 2010)

***Hidayate Riyazat* /recommendations of exercise**

Exercise should be according to age, temperament, occupation, body conditions, time etc. Best time for exercise is during moderate condition of body. (Ibn Sina, 2006) Refrain from strong exercise for diseased organs (Ibn Sina, 2006). Before exercise, intestine and urinary bladder should be empty (Ibn Sina, 2006). *Dalake istedad* should be done before exercise and *Dalake isterdad* after exercise (Ibn Sina, 2006; Baghdadi, 2004; Tabri *et al*., 2010) It should be done after complete digestion of food (Rushd, 1987; Ibn Sina, 2006; Jurjani *et al*., 2010) During heavy exercise there should be some *Lateef* (light diet) in stomach especially in summer season, and in winter there should be some *Ghaleez* (heavy diet) in stomach. One should take rest during heavy exercise.[10] Exercise should be done in morning hours, (Ibn Sina, 2006; Baghdadi, 2004). On empty and full stomach, exercise should be avoided (Ibn Sina, 2006; Baghdadi, 2004; Tabri, 2010; Jurjani, 2010). If there is excess *Hararat* (hot), *Yubusat* (dry) and *Burudat* (cold) in the body, exercise should not be done. (Ibn Sina, 2006; Jurjani, 2010)

***Awqate Riyazat*/Time of exercise**

In *Rabi* (spring season) good time for exercise in noon (Ibn Sina, 2006). in *Saif* (summer) exercise should be done in morning, (Ibn Sina, 2006; Baghdadi, 2004) as well as in *Shita* (winter) exercise should be performed in evening. (Ibn Sina, 2006; Baghdadi, 2004)

***Miqdare Riyazat* /quantity of exercise**

Miqdare Riyazat means how much exercise should be done and when it should stop (Ibn Sina, 2006). It should stop gradually [13.] Three things should be kept in mind.

Colour of the body

Exercise should be done till the colour of the skin remains shining, and if the colour is going to dull or yellow, then exercise should be stop (Ibn Sina, 2006)

Movements (*harkat*) of the body

When the movement of the body is being performed easily exercise should be continue. If there is feeling of fatigue it should be stopped. (Ibn Sina, 2006; Baghdadi, 2004; Razi, 1991)

Swelling of the organs (*aaza ka phoolna*)

exercise should be continue till the organs swollen and sweating dried up and when the organs stop to swell and sweating continues, exercise should be stopped. (Ibn Sina, 2006; Baghdadi, 2004)

Exercise of specific organs

Unani physicians explicated some legend suggestions regarding specific exercise for specific organs of the body.

Exercise of chest and respiratory system (*Aza-e- Tanaffus*)

By lifting of heavy things (Ibn Sina, 2006; Ibn Sina, 2010) Singing, speech, phonetics. [9,10,14,15,20] Stopping of respiration for short time (Ibn Sina, 2006; Baghdadi, 2004; Nafis, 1934) Repeatedly loud speaking. (Majoosi, 2010; Ibn Sina, 2006)

Exercise of ears

Listening of melodious songs. (Ibn Sina, 2006; Nafis, 1934)

Exercise of eyes

One should see the beautiful sceneries (Ibn Sina, 2006; Nafis, 1934) Continue looking at small things. 20 Observation of bright objects slowly and moderately (Ibn Sina, 2006). Travelling with sitting in opposite direction of movement (Ibn Sina, 2006) By seeing backsid (Shāh, 1998) up and down, and right and left; and gaze of yellow, green and sky blue colors is helpful for good vision. (Tabri *et al*., 2010)

Exercise of digestive system

Wrestling and boat travelling are beneficial for digestive system. (Shāh, 1998; Jurjani and . Zakhira Khawarazm Shahi, 2010) Daily routine work and physical exercise play an important role in digestion of food. (Shāh, 1998) Voyage via ship and boat is helpful in curing of many diseases like leprosy, ascites, apoplexy, flatulence, *Baroodate Medi* etc. (Ibn Sina, 2006; Nafis, 1934)

Exercise in hemiplagia

Application of massage and exercise in hemiplagia has been mentioned in greek, Egyptian, Arabic, Chinese and Indian medicines. Greek and arab physicians like hippocrate, galen razes and Avicenna, etc. Have mentioned about application of massage with medicated oil for the limitation of disability in the patient of hemiplagia. Razes Ali bun Abbas Majoosi mentioned the use of Roghane Qust on paralysed part and Vertabre. (Zakariya Razi, 1991; Ali bin abbas majoosi, 2010)

Passive and Active Exercises in hemiplagia

If you have hemiplegia, physical therapy is started soon after your condition stabilizes to prevent stiffening of muscles and joints. Exercises focus on stretching and strengthening the affected side. A physical therapist or caregiver may perform passive range-of-motion exercises on your upper extremities if you can't do them yourself. Upper extremity exercises may enhance your ability to perform tasks of daily living. If you are able, you can eventually do upper extremity exercises or active range-of-motion exercises on your own

(http://www.livestrong.com/article/411273-hemiplegia-upper-extremity-exercises/, nov 07, 2015)

Types of Exercises in hemiplagia

A physical therapist or caregiver might help you perform head and neck exercises, shoulder and elbow rotations and movements, wrist rotations and hand exercises that will help you gain dexterity and movement in your affected hand and fingers. In addition, part of your physical therapy might include exercises to enhance upper extremity strength. (http://www.livestrong.com/article/411273-hemiplegia-upper-extremity-exercises/ nov 07, 2015)

Back pain exercises

Back pain is pain felt in the back. Episodes of back pain may be acute, sub-acute, or chronic depending on the duration. The pain may be characterized as a dull ache, shooting or piercing pain, or a burning sensation. The pain may radiate into the arms and hands as well as the legs or feet, and may include tingling, weakness or numbness in the legs and arms. The most common area of pain is the lower back, or lumbar area. The pain may originate from the muscle, nerves bones, joints or other structures in the spine Internal structures such as the gallbladder and pancreas may also to the back.

Exercises can be an effective approach to reducing pain, but should be done under supervision of a licensed health professional. Generally, some form of consistent stretching and exercise is believed to be an essential component of most back treatment programs. However, one study found that exercise is effective for chronic back pain, but not for acute pain. (Hayden *et al*., 2005)

Ref image (http://yourmedguide.com/2010/06/low-back-pain-why-exercise-helps.html**)**

Exercises need in Obesity

Obesity is a medical condition in which excess body fat has accumulated to the extent that it may have a negative effect on health, leading to reduced life expectancy and/or increased health problems. (Haslam *et al*., 2009) In Western countries, people are considered obese when their body mass index (BMI), (WHO, 2000) a measurement obtained by dividing a person's weight by the square of the person's height, exceeds 30 kg/m^2, with the range 25-30 kg/m^2 defined as overweight. Reducing the amount of calories in your diet will help you lose weight, but if you want to keep off the weight, you have to combine a calorie-controlled diet with regular exercise. (http://www.nhs.uk/Conditions/Obesity/Pages/Treatment.aspx) Your GP or weight loss adviser can provide an exercise plan suited to your circumstances, which will probably involve several hours of moderate-intensity physical activity a week. Moderate-intensity physical activity is any activity that increases your heart and breathing rate, and may make you sweat, but still allows you to hold a normal conversation. Examples include:

- fast walking
- jogging
- swimming
- tennis
- using a step-trainer (or similar) at the gym

Choose physical activities that you enjoy, as you are more likely to continue doing them. You should aim to start gradually. For example, start off by doing 15 to 20 minutes of exercise five times a week and then build on it. (http://www.nhs.uk/Conditions/Obesity/Pages/Treatment.aspx)

Exercise therapy in diabetes

Regular aerobic exercise improves blood circulation and lowers blood glucose levels. Exercise also strengthens the heart and helps maintain an ideal body weight. The chosen aerobic exercise should use large muscle groups. Running, walking biking, and swimming are excellent activities for most people. The frequency, type, and duration of exercise depend on the individual's age, treatment goals, and physical ability. An exercise program should be designed with the guidance of a health care professional. Exercise usually decreases the blood glucose levels. If blood glucose is low or normal, exercise may cause hypoglycaemia (low blood glucose) due to the utilization of glucose by the active muscles. Therefore, food intake and insulin doses should be adjusted based on the intensity and duration of the anticipated exercise. (http://www.medicinenet.com/diabetic_home_care_and_monitoring/page3.htm)

Exercise for stress and anxiety (http://www.adaa.org/living-with-anxiety/managing-anxiety/exercise-stress-and-anxiety)

Exercise is also considered vital for maintaining mental fitness, and it can reduce stress. Studies show that it is very effective at reducing fatigue, improving alertness and concentration, and at enhancing overall cognitive function. This can be especially helpful when stress has depleted your energy or ability to concentrate. When stress affects the brain, with its many nerve connections, the rest of the body feels the impact as well. Or, if your body feels better, so does your mind. Exercise and other physical activity produce endorphins — chemicals in the brain that act as natural painkillers — and also improve the ability to sleep, which in turn reduces stress. Regular participation in aerobic exercise has been shown to decrease overall levels of tension, elevate and stabilize mood,

improve sleep, and improve self-esteem. About five minutes of aerobic exercise can begin to stimulate anti-anxiety effects.

Relationship of Exercise to Anxiety Disorders (http://www.adaa.org/living-with-anxiety/managing-anxiety/exercise-stress-and-anxiety**)-** Stress and anxiety are a normal part of life, but anxiety disorders, which affect 40 million adults, are the most common psychiatric illnesses in the U.S. The benefits of exercise may well extend beyond stress relief to improving anxiety and related disorders. Psychologists studying how exercise relieves anxiety and depression suggest that a 10-minute walk may be just as good as a 45-minute workout. Some studies show that exercise can work quickly to elevate depressed mood in many people. Although the effects may be temporary, they demonstrate that a brisk walk or other simple activity can deliver several hours of relief, similar to taking an aspirin for a headache.

Science has also provided some evidence that physically active people have lower rates of anxiety and depression than sedentary people. Exercise may improve mental health by helping the brain cope better with stress. In one study, researchers found that those who got regular vigorous exercise were 25 percent less likely to develop depression or an anxiety disorder over the next five years.

Exercise for cerebral palsy- (http://www.cerebralpalsysource.com/Treatment_and_Therapy/cp_treatment/index.html**)-** One of the mainstay therapy for cerebral palsy treatment is physical therapy. Physical therapy is used to decrease spasticity, strengthen underlying muscles, and teach proper or functional motor patterns. A cerebral palsy treatment that is used for fine motor skills and daily living activities is known as occupational therapy. Occupational therapy is used much in the same way as physical therapy, primarily focusing on the hands and arms. Another cerebral palsy treatment is exercise therapy which can greatly enhance the mindset of the patient and give them a great sense of accomplishment. Whether indoor or outdoor, exercise increases the amount of oxygen delivered to the brain and can alleviate stress. Swimming can be quite beneficial during cerebral palsy treatment, preferably in a warmer than average pool. Movement performed in water will be easier and more effective at exercising muscles.

Hippotherapy also known as horseback riding, involves specially trained physical and occupational therapist in treatment for patient with movement dysfunction. Hippotherapy uses the influence of the horse over the patient, rather than patient controlling the horse. Throat and tongue muscles may be affected as well, so speech and language therapy is available as cerebral palsy treatment as well. Speech and language therapy is used for spoken and alternative types of communication, such as sign language or computers.

Physical therapy for rheumatoid arthritis- The goal of it is to keep you moving. It uses exercise and other methods to stimulate muscles, bones, and joints. The result is more strength, tone, and overall fitness. (http://www.sheknows.com/health-and-wellness/articles /818863/Top-10-Exercises-for-women-with-rheumatoid-arthritis) If you have moderate or advanced rheumatoid arthritis, physical therapy can help you keep or improve your strength and flexibility. (http://www.sheknows.com/health-and-wellness/articles/818863/Top-10-Exercises-for-women-with-rheumatoid-arthritis)

Exercise- This is the cornerstone of any physical therapy plan. It will match your ability and fitness level, and include flexibility, strength, and cardio (aerobic exercise). (http://www.sheknows.com/health-and-wellness/articles/818863/Top-10-Exercises-for-women-with-rheumatoid-arthritis)

Exercises for woman with rheumatoid arthritis (http://www.sheknows.com/health-and-wellness/articles/818863/Top-10-Exercises-for-women-with-rheumatoid-arthritis)

- **Hamstring stretch-** Lay flat on your back and slowly draw one knee into your chest. Hold for 8 to 10 seconds, and then return to starting position. Repeat 3 to 6 times, and then switch legs.

- **Chest stretch-** Place your forearm flat against a wall. Keep your arm at a 90-degree angle and gently lean forward until you feel a stretch through the upper portion of your shoulder and chest. Hold for 8 to 10 seconds, and then return to starting position. Repeat 3 to 6 times.

- **Row wiyh resistence band-** Wrap a resistance band around a sturdy object in front of you. Hold the ends of the band in each hand with your arms straight out in front of you, palms facing each other. Make sure the band is tight. Contract your upper back muscles and pull the band toward you, bending your elbows, keeping your shoulders relaxed. Slowly return to starting position and repeat 10 to 15 times.

- **Chest press with resistance band-** Wrap a resistance band around a stable object behind you. Hold the ends of the band taut in each hand, palms down, with the band on top of your arms. Squeeze your chest and press your arms forward at shoulder level. Bring your arms to full extension, taking not to lock your elbow joints. Return to starting position and repeat 10 to 15 times.

- **Slow step up-** Place a step board or a low platform in front of you (if your home has stairs, use the bottom step). Stand about 12 to 24 inches from the board, then step up with your right foot and lift your left knee up slowly. Return to start position. Repeat on the right side 10 to 15 times, and then switch sides.

- **Walking-** Walking is a great form of cardiovascular exercise that you can do almost anywhere. Start out slow on a flat course. As you build up strength and endurance, increase your time and even try some small hills.

- **Recumbant bike or elliptical-** If you have access to a gym, the recumbent bike or elliptical trainer provides a great low-impact workout. Start with 10 to 15 minutes 2 to 3 days a week.

- **Basic yoga or yoga stretch-** Yoga is great for relaxing, and it can aid in improving flexibility in stiff joints. Some poses may cause discomfort for RA sufferers, so be sure to speak with your instructor about modifications.

- **Group fitness classes-** A low-impact fitness class is a great way to have fun and work out at the same time. Check the class schedule at your local gym and talk with a trainer or instructor to decide which class would be the best for you. If available, water aerobics is a great option for those with joint pain.

- **Listen to your body-** It's important to start out slow and build up strength as you goes to avoid discomfort and injury. If your joints are inflamed or you're not feeling well, rest and drink plenty of water. Once you feel better and are able to resume activity, listen to your body and talk to your doctor if there are any lingering issues.

Recommended Exercise in pregnancy

Abu-Bakr Zakariya Razi has described in his book "Kitab-ul-Hawi" that during pregnancy there is increase in waste products and pregnant women usually suffer from nausea, palpitation and loss of appetite etc. He recommends Chahal Qadmi (walking) for these ailments[34]. Hkm. Mohd. Saharanpuri has mentioned in his book "Hayat-e- Hubli" that Chahal Qadmi (walking) and khafif Riyazat (moderate exercise) is beneficial in various ailments of pregnancy[35]. It is currently recognized that habits adopted during pregnancy could affect woman's health for the rest of her life. Hence regular exercise is promoted for its overall health benefits. The American College of Obstetricians and Gynaecologists (ACOG) have also recommend exercise for maternal health. In January 2002 the ACOG published new recommendations and guidelines for exercise during pregnancy and the postpartum period[36] The Canadian Diabetes Association[37] and the American Diabetes Association suggests, ''women without medical or obstetrical contraindications be encouraged to start or continue a program of moderate exercise as part of treatment for GDM''[38]

Recommended Exercise in pregnancy (American College of Obstetricians and Gynecologists, 1994)

- Fitness walking
- Jogging (mild)
- Swimming
- Aquanatal classes
- Low-impact aerobics
- Pilates
- Yoga and stretching

Benefits of Exercise to the Pregnant Woman (American Diabetes Association, 2004; American College of Obstetricians and Gynecologists, 1994; Shah Mazhar, 1998; khanmubin, 2003; ACOG, 1985; Kabiruddin,1934; Wolfe *et al*., 1994**)**

- Improved circulation for mother and baby (which helps prevent constipation,
- Haemorrhoids, varicose veins, leg cramps and swelling of ankles).
- Improves digestion.
- Reduces common aches and pain including backaches.
- Stimulates the innate heat and makes the body feel lighten by producing mild heat.
- Increases energy and stamina22 (regular exercise improves CVS which can help sustain energy levels).
- Limits the pregnancy related increase in peripheral insulin resistance.
- Facilitates a general feeling of well-being,.
- Improves mental wellbeing,.
- Maintains or develops optimal posture.
- Promotes pelvic floor strength.
- Maintain or improve strength and/or flexibility.
- Possible control of excess weight gain.
- Promotes better sleep
- Enhances self images and confidence.
- Lift spirits and balanced mood.
- Increases body awareness.
- A beneficial effect on the course and outcome of labour.
- Aids post natal recovery.

Exercise beneficial for depression (http:// holisticonline.com/Remedies/Depression/dep_exercise.htm**)**
Exercise is essential for physical and mental health. It provides an outlet for releasing negative emotions, such as anger, frustration, and irritability. By stimulating the production of neurochemicals in the brain, such as norepinephrine, it can help to lift you out of a depressive funk. Physical activity should be a part of any therapy for depression. Even if used alone, exercise can often bring startling results. Studies show that jogging for 30 minutes three times a week can be as effective as psychotherapy in treating depression. Any exercise is fine; the more energetic and aerobic, the better. Exercise seemed to do a better job of keeping symptoms from coming back after the depression lifted.

The exercise primarily consisted of brisk walking, stationary bike riding, or jogging for 30 minutes, plus a 10-minute warm-up and 5-minute cool-down, three times a week. Exercise alone probably won't do much for someone who has been depressed for a long time. Nor will it help a person gripped by an acute episode of severe depression. However, exercise can be helpful for people with more moderate forms of depression. In a well-known study, psychiatrist John Griest and his associates at the University of Wisconsin assigned 24 clinic patients with moderate depression either an exercise program or one of two widely used forms of treatment. In the two standard treatment groups, therapists met with the patients once a week; in the exercise group, patients went jogging with a trainer three times a week for 45 to 60 minute at a time. After 12 weeks, about three-quarters of the patients in each of the three treatment groups had gotten over their depression. But one year later, the people who had been treated with running therapy were still running on their own and were free of depression, while half of those

who received psychotherapy had returned for treatment. A second study found similar results with 60 subjects divided between exercise (walking and jogging), meditation training, and group psychotherapy. Although all treatments were equally effective at first, a follow-up three months after the end of treatment showed the exercisers and meditators had made further gains, while those in group psychotherapy had a tendency to relapse. These experiments conclude that exercise is as good as or better than standard medical treatment for moderate depression.

Exercise in fibromyalgia (http://holisticonline.com/ Remedies/cfs/fib_exercise.htm)

Recent studies have shown that people can get a sustained benefit by participating in an aerobic exercise program. Aerobic exercise involves some activity that causes your pulse rate to increase and remain increased over an extended period of time. Usually 20 to 30 minutes of aerobic exercise is recommended. Most people with fibromyalgia are reluctant to exercise because it initially causes more pain. But if your doctor or therapist works out an exercise program that starts out slowly and gradually becomes more challenging, the risk of muscle micro trauma will be significantly reduced, and your body will eventually be able to accept more vigorous exercise routines. Avoid impact-loading exercises such as jogging, aerobic dancing, weight training, racquet sports, basketball, or any other activity that involves jumping up and down.

Ideal exercises include:

- Walking
- Using a stationary bike or a treadmill
- Swimming
- Qigong
- Thai chi
- Yoga.
- Aqua jogger.

Aqua jogger is an excellent exercise. Aqua jogger is a buoyancy belt that fits around the chest and allows the person to stand up in a swimming pool and either walk or run against the resistance of the water. Remember to gently stretch all your major muscle groups for about five minutes-both before and after-you exercise. Stretching helps reduce the chance of muscle injury.

Exercise in migraine (http://holisticonline.com/ Remedies/migraine/mig_exercise.htm)

A moderate aerobics program can lessen the frequency and intensity of the migraine when it occurs. However, continuous and strenuous exercise may in fact precipitate migraine headache. So you have to be very careful as to the type of exercises you choose. Daily exercise is useful as a preventive measure, less effective in combating the pain when the migraine attack is in progress. Exercise can ease body tension and improve circulation. Both of these physiological changes reduce the likelihood of migraine attacks. Migraine sufferers who are placed on a regular aerobics training program cut the frequency of their headaches in half.

Here is a suggested exercise to relieve your migraine

Walk and/or run for thirty minutes a day, three times a week. As your body readjusts over several months to the increase in oxygen, nutrients, and fitness level, you may experience a reduction in your migraines. Play a game that you enjoy, such as tennis, basketball, volleyball, softball, or soccer. Ride a bicycle five times per week.

Flexibility and strengthening exercises for arthritis (http://holisticonline.com/Remedies/Arthritis)

1-Neck exercises (http://holisticonline.com/Remedies/Arthritis)

1. Heads Up

This exercise relieves jaw, neck, and upper back pain.
Sit or stand straight.

Gently slide your chin back.

Keep looking forward as your chin moves backward. You will feel the back of your neck lengthen and straighten. Put your finger on your nose and then draw straight back from your finger.

2. Two-Way Neck Stretch

In heads-up position (Exercise 1), and with your shoulders relaxed,

a. Turn slowly to look over your right shoulder. Then turn slowly to look over your left shoulder.
b. Tilt your head to the right and then to the left. Move your ear toward your shoulder. Do not move your shoulder up to your ear.

Caution: Don't do these exercises if they cause neck pain, or pain or numbness in your arms or hands.

Hand And Wrist Exercises (http://holisticonline.com/ Remedies/Arthritis)

Do these exercises at a table that supports your forearms.

1. One Two Three Finger Exercises

For the best hand function, you should be able to touch the tips of your fingers to the palm and straighten the fingers completely. Use the one-two- three approaches to stretch and strengthen fingers.

To bend fingers

- Begin bending the joint closest to the tip of the finger
- Bend the middle joint
- When your fingertips are touching the palm, or are as close as possible, bend the knuckle joint.

To straighten your fingers, just do the movements in reverse

- First straighten the knuckles
- Then the middle joint, and
- Straighten the fingertips.

You can exercise your fingers individually or together, using your other hand to help if necessary.

2. Thumb Walk

Holding your wrist straight, form the letter "O" by lightly touching your thumb to each fingertip. After each "O" straighten and spread your fingers. Use the other hand to help if needed.

3. Hi and Bye-

a. To strengthen and limber your wrist, rest your forearm on a table with your hand over the edge. Keep fingers relaxed and bend your wrist up and down.
b. To strengthen the small muscles of the hand, slide your arm back until your fingers hang over with your knuckles at the table edge. Keeping your fingers straight and together and your palm flat, move your fingers up and down.

4. Door Opener-This exercise stretches the muscles and ligaments that rotate the forearm, letting you turn doorknobs, use a screwdriver, of put your hand in your back pocket. Start with your forearm resting on a table, palm down. Keeping your little finger on the table, turn your hand so the palm faces up. If you use your other hand to help, grip your forearm, not the wrist or hand.

Shoulder Exercises

1. Pendulum-This is good for a painful or limited shoulder. It helps to relax shoulder muscles and moves the joint in all directions. You can do this exercise either standing or sitting. Lean slightly forward. Let your arm hang freely in front of you. Relax and feel the weight of your arm. Keeping the arm relaxed, begin to make small circles. Gradually increase to larger circles. Exercise just past the point of discomfort, but don't push too hard.
2. Shoulder Cradle-Grasp one arm near the elbow with your other hand and raise the arm up over your head. Holding your arm as high as it will go, bend and straighten your elbow. If your shoulder is painful or tight, you may do this exercise lying down.
3. Wand Exercise-If one or both of your shoulders are particularly tight or weak, this exercise is good for you. Use a cane, yardstick, or mop handle as your wand. Place one hand on each end and raise the wand as high overhead as possible. This exercise can be done standing, sitting, or lying down.
4. Shoulder Pulley-Fasten a hook or pulley in a beam or on the top of a door frame. Place a piece of rope or clothesline through the hook. Start with enough rope to let you sit while exercising. Hold one end of the rope in each hand. If gripping the rope is uncomfortable, add padding or handles. As you pull down with one arm, the other arm will be raised. Move your arms up and down in front of you and also out to the side.
5. Pat and Reach-This exercise helps increase flexibility and strength for both shoulders. Raise one arm up over your head and bend your elbow to pat yourself on the back. Move your other arm to your back, bend your elbow, and reach up toward the other hand. Can your fingertips touch? Relax and switch arm positions. Can you touch on that side? For most people, one position will work better than the other.
6. Shoulder Blade Pinch-This is a good exercise to strengthen the middle and upper back and to stretch the chest. Sit or stand with your head in heads-up position and your shoulders relaxed. Raise your arms out to the sides with elbows bent. Pinch your shoulder blades together by moving your elbows as far back as you can. Hold briefly, then slowly move your arms forward to touch elbows. If this position is uncomfortable, lower your hands to touch your shoulders.

Back And Abdominal Exercises

1. Knee-to-Chest Stretch -Lie on the floor with knees bent and feet flat. Bring one knee toward your chest, using your hands to help. Hold your knee near your chest for ten seconds and lower the leg slowly. Repeat with the other knee. Relax and enjoy the stretch.

Note: You can also tuck both legs at the same time if you wish.

2. Pelvic Tilt- An excellent exercise for low back pain. Lie on your back with knees bent, feet flat. Place your hands on your abdomen. Flatten the small of your back against the floor by tightening your stomach muscles and your buttocks. Imagine bringing your pubic bone to your chin, or trying to pull your tummy in enough to zip a tight pair of trousers. Hold the tilt for five to ten seconds. Relax. Arch your back slightly. Relax and repeat the Pelvic Tilt. Keep breathing. Count the seconds out loud. Once you've mastered the Pelvic Tilt lying down, practice it sitting, standing, and walking.
3. Back Lift- (1) This exercise improves flexibility along your spine. Lie on your stomach and rise up onto your forearms. Straighten your elbows. Breathe naturally and relax.

Note: If you have moderate to severe low back pain, do not do this exercise unless it has been specifically prescribed for you.

4. Back Lift (2)-This exercise is good for strengthening your back muscles. Lie on your stomach with your arms at your side or overhead. Lift your head, shoulders, and arms. Do not look up. Keep looking down with your chin tucked in. Count out loud as you hold for a count of ten. Relax. You can also lift your legs off the floor instead of your head and shoulders.
5. Low Back Rock and Roll-Lie on your back and pull your knees up to your chest with your hands behind the thighs. Rest in this position for ten seconds, and then gently roll knees from one side to the other, rocking your hips back and forth. Keep your upper back and shoulders flat on the ground.
6. Curl Up-This exercise is great for strengthening your abdominal muscles. Lie on your back, knees bent, feet flat. Do the Pelvic Tilt (exercise 2 above). Slowly curl up to

raise your head and shoulders. Uncurl back down, or hold for ten seconds and slowly lower. Breathe out as you curl up, and breathe in as you go back down. Do not hold your breath.

Caution: If you have neck problems, or if your neck hurts when you do this exercise, do not do this exercise. Do the exercise 7 below instead. Never tuck your feet under a chair or have someone hold your feet!

7. Roll Out-This exercise is a good abdominal strengtheners. It is also easy on the neck. This exercise is recommended instead of the Curl Up (exercise 6) above if you have neck pain. If neck pain is not a problem, you can do both these exercises. Lie on your back with knees bent and feet flat. Bring one knee up to your chest. Do the Pelvic Tilt (Exercise 2) and hold your lower back firmly against the floor. Slowly and carefully, move one leg away from your chest as you straighten your knee. Move your leg out until you feel your lower back start to arch. When this happens tuck your knee back to your chest. Reset your pelvic tilt and roll your leg out again. Breathe out as your leg rolls out. Do not hold your breath. Repeat with the other leg.

Note: You are strengthening your abdominal muscles by holding your pelvic tilt against the weight of your leg. As you get stronger, you'll be able to straighten your legs out farther and move both legs together.

Hip and leg exercises

1. Straight Leg Raise-This exercise strengthens the muscles that bend the hip and straighten the knee. Lie on your back, knees bent, feet flat. Straighten one leg. Tighten the muscle on the top of that thigh and straighten the knee as much as possible. Keeping the knee straight, raise your leg one to two feet (about 50 cm) off the ground. Do not arch your back. Hold your leg up and count out loud for ten seconds. Relax. Repeat with the other leg.
2. Hip Hooray-This exercise can be done standing or lying on your back. If you lie down, spread your legs as far apart as possible. Roll your legs and feet out like a duck and then in, pigeon-toed. If you are standing, move one leg out to your side as far as you can. Lead out and in with the heel. Hold onto a counter for support.
3. Back Kick-This exercise increases the backward mobility and strength of your hip. Hold onto a counter for support. Move the leg up and back, knee straight. Stand tall and do not arch your back.
4. Knee Strengtheners-This exercise strengthens the knee. Sitting in a chair straighten the knee by tightening up the muscle on top of your thigh. Place your hand on your thigh and feel the muscle work. Holding your knee as straight as possible, push out with your heel and then point your toes. Make circles with your toes. As your knee strengthens, see if you can build up to holding your leg out for thirty seconds. Count out loud. Do not hold your breath.
5. Power Knees-This exercise strengthens the muscles that bend and straighten your knee. Sit in a straight-backed chair and cross your legs above the ankles. Your legs can be almost straight, or you can bend your knees as much as you like. Try several positions. Push forward with your back leg and press backward with your front leg. Exert pressure evenly so that your legs do not move. Hold and count out loud for ten seconds. Relax. Change leg positions. Be sure to keep breathing.
6. Hamstring Stretch. This is a good exercise to do if you get muscle cramps in the back of your thigh.

Caution: If you have unstable knees, or "back knee" (a knee that curves backward when you stand up), do not do this exercise.

Lie on your back, knees bent, feet flat. Grasp one leg at a time just above the knee and hold the leg at a right angle with the body. Holding the leg out at arm's length, slowly straighten the knee. Hold the leg as straight as you can as you count to ten.

Caution: Be careful. It's easy to overstretch and be sore with this exercise.

7. Achilles Stretch-This exercise helps maintain flexibility in the Achilles tendon, the large tendon at the back of your ankle. This exercise is especially helpful for cooling down after walking or cycling, and for people with ankylosing spondylitis or psoriatic arthritis and also for calf cramps. Stand at a counter or against a wall. Place one foot in front of the other, toes pointing forward and heels on the ground. Lean forward, bend the knee of the forward leg and keep the back knee straight, heel down. You will feel a good stretch in the calf. Hold the stretch for ten seconds. Do not bounce, Move gently.
8. Tiptoes-This exercise strengthen your calf muscles and make walking, climbing stairs, and standing less tiring. Hold on to a counter or table for support and raise up on your tiptoes. Hold for ten seconds. Lower slowly.

Notes: How high you go is not as important as keeping your balance and controlling your ankles. It is easier to do both legs at the same time. If your feet are too sore to do this standing, start doing it while sitting down.

Ankle and feet exercises

These exercises are for flexibility, strength, and comfort.

1. Ankle Circles-Sit in a straight-backed chair with your feet bare. Hold your feet slightly off the ground and slowly circle your ankles to the right and then to the left. Go as far in each direction as you can.
2. Towel Grabber -Sit in a straight-backed chair with your feet bare. Spread a towel out in front of your chair. Place your feet on the towel with your heels on the edge closest to you. Keep your heels down. Scoot the towel back underneath your feet by pulling it with your toes as you arch your feet. When you have done as much as you can, reverse the toe motion and scoot the towel out again.
3. Marble Pickup-Do this exercise one foot at a time. Sit in a straight-backed chair with your feet bare. Place several marbles on the floor between your feet. Keep your heel down and pivot your toes toward the marbles. Pick up a marble in your toes and pivot your foot to drop the marble as far as possible from where you picked it up. Repeat until all the marbles have been moved. Reverse the process and return all the marbles to the starting position.

Note: If marbles are difficult, try other objects like jacks, dice, or wads of paper.

4. Foot Roll -This exercise stretches the ligaments in the arch of the foot. Sit in a straight-backed chair with your feet bare. Place a rolling pin (or a large dowel or closet rod) under the arch of your foot and roll it back and forth.

Exercise for Chronic Fatigue syndrome

Exercise is the most important treatment for chronic fatigue syndrome. The persons who suffer from CFS are almost always in a vicious downward cycle. They are fatigued with muscle pains and they have been getting a great deal of rest. A cycle develops whereby rest leads to muscle wasting, which leads to decreased performance, which leads to pessimism, which leads to disinterest in exercise, which in turn leads to even more rest. Daily exercise can end that downward cycle and replace it with an upward, positive cycle. When a person exercises, a new cycle develops consisting of exercise that leads to muscle enlargement, which leads to increased performance, which leads to optimism, which leads to interest in exercise, which in turn leads to even more exercise. Studies have demonstrated that exercise has anti-anxiety and antidepressant properties. The reason may be a combination of producing endorphins (the pleasure hormone that our brains make when we exercise) and attaining a sense of accomplishment at having reversed the loss of function that befalls people with chronic fatigue syndrome. Of course, exercise is also beneficial for the cardiovascular system.

Exercise must be started slowly and increased gradually. If a person is generally fatigued and is not in physical fitness, limit the exercise to what can be tolerated. (Make sure that you contact a doctor and determine your exercise readiness. If possible, have a physical therapist develop an exercise program for you. Embarking on a strenuous exercise if you are physically out of condition is dangerous.) Walking, swimming, riding a stationary bike, aerobic exercises from a videotape, or a rowing machine are all good aerobic exercises. Avoid any activity that increases fatigue or any of the other symptoms associated with CFS such as weightlifting, playing basketball etc. Stretching exercises, yoga, qigong, and breathing exercises are especially helpful since they stimulate lymph flow. To be effective, a person must exercise every day. Initially, the daily duration could be as little as five minutes, and even less in some cases. Each week the daily duration is increased by several minutes.

After a few months, a person can be spending an hour or more per day exercising! Be very gentle with yourself, listen to your body, and increase the intensity of your exercise very gradually. Avoid the tendency to overdo exercise on days when he or she is feeling well, followed by an overall decline in performance. Inevitably, after unusually strenuous exercise, there will be severe pain and fatigue the next day, followed by several days of inability to do any exercise. The muscles will then waste away and the person will have actually lost ground by the time he or she is ready to resume exercise. Studies have demonstrated an abnormal perception of muscular activity in chronic fatigue syndrome patients. They may not realize how much exercise they have done or when it is time to quit for the day. If a chronic fatigue syndrome patient is to regain muscle strength, it is necessary to perform a certain amount of exercise each day, recommended by his or her physician. Don't try to overdo it or overdo it. Just do it!

Exercise for Parkinson disease

Because movements are affected in Parkinson's disease, exercising may help people improve their mobility. Some doctors prescribe physical therapy or muscle- strengthening exercises to tone muscles and to put underused and rigid muscles through a full range of motion. Exercises will not stop disease progression, but they may improve body strength so that the person is less disabled. Exercises also improve balance, helping people overcome gait problems, and can strengthen certain muscles so that people can speak and swallow better. Exercises can also improve the emotional well- being of parkinsonian patients by giving them a feeling of accomplishment. Whatever form of exercise you choose, make sure it is something that gets your muscles moving, your heart pumping, and that you can keep up with it every day. Walking, jogging, stretching, swimming, and other activities are terrific ways to help you cope with the tremor, muscle stiffness, and slow movements that may occur with Parkinson's disease. You will probably find a daily exercise routine will help you to feel better about yourself and your condition, continue functioning, maintain a good body weight, and sleep better at night. Make sure to consult your doctor before starting any exercise program. Do not exercise when you feel tired.

- Daily walking
- Yoga or gentle stretching

Yoga is an ideal form of exercise for Parkinson's patients because of its slow movements.

Chi Yi

Chi Yi is a Chinese deep breathing exercise. It increases the oxygen supply in the blood and may thereby help alleviate depression. Sit with your back against the back of a chair and your feet flat on the floor. Reach toward the ceiling with both arms, inhaling deeply through your nose as you do so. Hold your breath as you ball your hands into fists, squeezing your arm muscles. Exhale slowly through your nose to a count of six as your bring your tensed arms down, crossing them on your chest over your heart. Lower your chin to your chest. Take four short breaths, completely filling your lungs, and feel your chest expand. Hold for a few seconds, and then exhale slowly. Repeat this exercise several times each day, concentrating on the rhythm and depth of each breath. If tremor prohibits arm or head movements, concentrate on the breathing, working toward a rate of only four or five breaths per minute. Limit practice to five minutes per day.

Exercises for sleep and insomnia

People who regularly engage in exercise have fewer episodes of sleeplessness. Exercise promotes improved sleep quality by allowing smoother and more regular transition between the cycles and phases of sleep. Moderate exercises lasting 20 to 30 minutes three or four times a week will help you sleep better

and give you more energy. Exercise in the morning or afternoon, not close to bedtime. Vigorous exercise during the day and mild exercise at bedtime will not only help you fall asleep and stay asleep more easily but will increase the amount of time you spend in deepest Stage 4 sleep. For some people, exercise alone is sufficient to overcome their sleep problems.

Stanford University School of Medicine researchers studied the effects of exercise on the sleep patterns of adults aged fifty-five to seventy-five who were sedentary and troubled by insomnia. These adults were asked to exercise for twenty to thirty minutes every other day in the afternoon by walking, engaging in low-impact aerobics, and riding a stationary bicycle. The result? The time required to fall asleep was reduced by half, and sleep time increased by almost one hour.
Benefits of Exercise50

- Exercise reduces stress by helping to dissipate the lactic acid that accumulates in the blood.
- Exercise eases the muscular tension that can build up.
- Exercise sharpens the brain by increasing the amount of oxygen available.
- Exercise strengthens and stimulates the heart and lungs.
- Exercise vitalizes the nervous system.
- Exercise activates the endocrine system.
- Exercise increases the body's production of endorphins. Endorphin creates a sense of well-being and increases the body's resistance to pain.
- Exercise stimulates the release of epinephrine, a hormone that creates a sense of happiness and excitement.
- Exercise reduces the boredom, worry, and tension.
- Exercise improves sleep because it is a physical stressor to the body. The brain compensates for physical stress by increasing deep sleep. Therefore, we sleep more deeply and soundly after exercise.

Exercise to Combat Sleeplessness

Two findings about exercise are particularly relevant to insomniacs.

1. Insomniacs lead more sedentary lives than good sleepers. The lack of physical activity can contribute to insomnia by inhibiting the daily rise and fall of the body-temperature rhythm. As a result, many people get caught in a cycle of insomnia, reduced energy and physical activity, and worsened insomnia.
2. Exercise improves sleep by producing a significant rise in body temperature, followed by a compensatory drop a few hours later. The drop in body temperature, which persists for two to four hours after exercise, makes it easier to fall asleep and stay asleep.

The exercise you choose should involve vigorous use of your legs if it should help with your sleep. The fatigue produced by [using leg muscles] acts as a tranquilizer. Aerobic exercises are the best to combat sleeplessness. These exercises increase the amount of oxygen that reaches the blood. Examples of aerobic exercises are: jogging, swimming, riding a bicycle, jumping rope, dancing, riding a stationary bicycle, using a treadmill, and walking. A mild workout for fifteen to twenty minutes a day, four days a week, will be enough for you to feel the benefits. Stretch before and after you do anything vigorous. Allow yourself a cool-down period after exercising, before you stretch.

For many people, the ideal time to exercise is early in the morning. But for combating insomnia, the best time to exercise is at the end of the afternoon or in the early evening. If possible, however, avoid exercise in the late evening or just before going to bed. Exercise is stimulating to the body. It can take quite a while for your muscles and circulation system to calm down again after a vigorous workout. Mild, non-aerobic exercise may help you unwind at the end of the day. Take a leisurely walk breathing deeply and allowing yourself to respond to the physical sensation of being outside. Gentle dancing to pleasant music can help you lift your mood and relax your body. Yoga and stretching exercises are good ways to wind down.

Conclusion

Physical exercise is safe and effective during many illnesses and is recommended to cure some ailments. It can reduce your risk of major illnesses, such as hemiplagia, Parkinson disease, type 2 diabetes, and cerebral palsy, etc. .People who do regular activity have a lower risk of many chronic diseases, such as heart disease, type 2 diabetes, stroke, and some cancers. Research shows that physical activity can also boost self-esteem, mood, sleep quality and energy, as well as reducing your risk of stress, depression, dementia and Alzheimer's disease.

Acknowledgement

We are very thankful to our colleague for their cooperation and help in the presentation of this article and thankful to library staff and co- authors

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